To: Vendlinski, Tim[vendlinski.tim@epa.gov]
From: Diamond, Jane
Sent: Mon 6/23/2014 10:16:07 PM
Subject: FW: Follow-up materials to last week's Bay Delta / SJR flows meeting
FL Chassahowitzka 2010 11 MFL Draft with highlight.pdf
FL Chassahowitzka govboard_10-30-12_minutes_2245 w highlight.pdf
Existing Flow WQS Across the Country.docx

This isn't a complete list, only follow up on flows. For ex, it doesn't have the WOUS item which asked Jason to follow up with Dee Dee. I was hoping for something we would all see indicating who's doing what follow up, not ccs of the individual follow up. Is there something else maybe I didn't see?

Jane Diamond

Water Director, EPA Region 9

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From: Cabrera-Stagno, Valentina
Sent: Thursday, June 19, 2014 5:27 PM
To: felicia.marcus@waterboards.ca.gov; frances.spivy-weber@waterboards.ca.gov; tam.doduc@waterboards.ca.gov; steven.moore@waterboards.ca.gov; dorene.dadamo@waterboards.ca.gov; tom.howard@waterboards.ca.gov; Riddle, Diane@Waterboards; caren.trgovcich@waterboards.ca.gov
Cc: Diamond, Jane; Vendlinski, Tim; Foresman, Erin; Skophammer, Stephanie; Kemmerer, John
Subject: Follow-up materials to last week's Bay Delta / SJR flows meeting

Thank you for taking the time to meet with us last week. As a follow-up, I am attaching some materials that answer some questions that were raised during our different conversations. First is an attachment containing the flow water quality standards already adopted nationwide. Some additional states have flow related thresholds established in contexts outside of the Clean Water Act but I do not have a good tally of these. I also mentioned an example of Florida setting percentage of flow based limits. These were not adopted as water quality standards but I have attached two documents relating to their proposal with highlights in the relevant portions. I include a couple of additional examples of states using a percentage of flow approach below. Finally I included an example of how Michigan is making their water diversion decisions based on a series of fish community to flow regressions.

Thanks again,

-Valentina

Water Division

EPA Region IX

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Florida: I mentioned this example in our meeting. There are two documents attached relating to this item. The first is the original Minimum Flow and Level for the Chassahowitzka River with the language at the end of the Executive Summary stating that the recommendation is to retain "89% of the baseline flow" highlighted in yellow. That document received significant opposition and they reduced the recommendation to leaving 91% before it went to hearing. That received opposition as well and EPA Region 4 worked with Florida DEP to recommend revisions. The second attachment is the minutes from the Florida Board's review that ended up adopting a preservation of 97% of "natural flows." The final ruling on page 8 is highlighted. The 97% decision is being challenged, in part, because the flows have already been significantly reduced from historical flows and "natural flows" appear to represent the current baseline more than the historically accurate natural flows. Flows have been reduced even after the date that the waters were listed as Outstanding Florida Waters. The citizens want 0% reduction in flows and restoration back to higher flows to keep the salt line down. There is already a die off of wetlands hardwoods which are now in salt water instead of fresh. It appears there hasn't been an analysis quantifying how much the flow has been reduced over time to be able to calculate what this would mean as a comparison to CA's % of Unimpaired Flow approach.

My Region 4 colleague also mentioned that Tennessee has all water withdrawals go through antidegradation reviews under their WQS.

Massachusetts recommends between 3 and 25% allowable alteration of estimated unimpacted median flow depending on the type of waterbody and month.

The USGS report (http://pubs.usgs.gov/sir/2011/5193/) provided the basis for the thresholds. The following documents are labeled draft but were later approved by their Advisory Committee so are the final reports. http://www.mass.gov/eea/docs/eea/water/framework-draft-feb03-2012.pdf See pages 6-10 and in the appendices see Appendix C and D. http://www.mass.gov/eea/docs/eea/water/framework-appendices-feb03-2012.pdf .

North Carolina recommended a two part strategy. 1) Establish ecological flows on the basis of 80-90% flow-by (i.e., 80-90% of ambient modeled flow remains in the stream) in combination with a critical low-flow component that identifies when additional actions may be needed to protect ecological integrity. 2) Use a 5-10% reduction in biological condition as a threshold for initiating further review.

http://www.fws.gov/asheville/pdfs/Recommendations%20for%20Maintaining%20Flows%20FINAL%202013-10-30.pdf

Michigan has a Water Withdrawal Assessment Tool (WWAT) designed to estimate the likely impact of a water withdrawal on nearby streams and rivers. Use of the WWAT is required of anyone proposing to make a new or increased large quantity withdrawal (over 70 gallons per minute) from the waters of the state, including all groundwater and surface water sources, prior to beginning the withdrawal. You must use the WWAT to determine if a proposed withdrawal is likely to cause an Adverse Resource Impact, and to register the withdrawal. The State's waters were mapped into 11 river types and then fish response curves were modeled that related population and density changes in fish communities to percentage reductions in Index Flow (the low flow period, typically August). Withdrawals are capped at the volume that risks adversely impacting fish communities during the most-sensitive time of year. New withdrawals registration is expedited when environmental risk is low. http://www.miwwat.org/